

We claim:

1. A bioavailable cyclodextrin/carotenoid complex, which comprises:
  - (a) a freeze-dried cyclodextrin/carotenoid complex in a molar ratio of between about 0.5:1 and 10:1; and
  - (b) a vegetable oil.
- 5 2. The complex of claim 1, wherein said vegetable oil is edible.
3. The complex of claim 2, wherein said vegetable oil is one or more of coconut oil, corn oil, cottonseed oil, oat oil, olive oil, palm oil, palm kernel oil, peanut oil,  
10 rapeseed oil, rice bran oil, safflower oil, sesame seed oil, soybean oil, or sunflower oil.
4. The complex of claim 1, wherein lecithin is admixed with said vegetable oil in a weight ratio of lecithin to vegetable oil ranging between about 10:1 and 1:1.
- 15 5. The complex of claim 1, wherein said cyclodextrin is one or more of  $\alpha$ -cyclodextrin,  $\beta$ -cyclodextrin,  $\gamma$ -cyclodextrin, or HP- $\beta$ -cyclodextrin.
6. The complex of claim 1, wherein said carotenoid is one or more of lycopene,  
20 lutein, or zeaxanthin.
7. The complex of claim 5, wherein said carotenoid is one or more of lycopene, lutein, or zeaxanthin.
- 25 8. The complex of claim 7, wherein lecithin is admixed with said vegetable oil in a weight ratio of lecithin to vegetable oil ranging between about 10:1 and 1:1.
9. The complex of claim 1 disposed in soft gelatin capsule.
- 30 10. The complex of claim 8 disposed in a soft gelatin capsule.
11. A method for making an improved bioavailable form of cyclodextrin/carotenoid complex, for animal ingestion, which comprises the steps of:

- (a) forming a cyclodextrin/carotenoid complex;
  - (b) freezing drying said cyclodextrin/carotenoid complex;
  - (c) blending said freeze-dried cyclodextrin/carotenoid complex with a vegetable oil; and
  - 5 (d) incorporating said blend into a soft gelatin capsule.
  
- 12. The method of claim 11, wherein said vegetable oil is edible.
  
- 10 13. The method of claim 12, wherein said vegetable oil is one or more of coconut oil, corn oil, cottonseed oil, oat oil, olive oil, palm oil, palm kernel oil, peanut oil, rapeseed oil, rice bran oil, safflower oil, sesame seed oil, soybean oil, or sunflower oil.
  
- 15 14. The method of claim 11, wherein lecithin is admixed with said vegetable oil in a weight ratio of lecithin to vegetable oil ranging between about 10:1 and 1:1.
  
- 15 15. The method of claim 11, wherein said cyclodextrin is one or more of  $\alpha$ -cyclodextrin,  $\beta$ -cyclodextrin,  $\gamma$ -cyclodextrin, or HP- $\beta$ -cyclodextrin.
  
- 20 16. The method of claim 11, wherein said carotenoid is one or more of lycopene, lutein, or zeaxanthin.
  
- 17. The method of claim 15, wherein said carotenoid is one or more of lycopene, lutein, or zeaxanthin.
  
- 25 18. The method of claim 17, wherein lecithin is admixed with said vegetable oil in a weight ratio of lecithin to vegetable oil ranging between about 10:1 and 1:1.
  
- 19. The method of claim 11, wherein said cyclodextrin/carotenoid complex is made for human ingestion.
  
- 30 20. The method of claim 18, wherein said cyclodextrin/carotenoid complex is made for human ingestion.